

## Section 2. Form PTO - 1449 (Modified) (ATTACHMENT)

#2  
Conklin

FORM PTO-1449 U.S. DEPT. OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO. BTI-41	SERIAL NO. 09/441,318
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Conklin et al	
	FILING DATE 11/16/99	GROUP 1649 3f

## U.S. PATENT DOCUMENTS

Exam Initial	DOCUMENT NUMBER	DATE	PATENTEE	CLASS	SUB	FILING DATE IF APPROPR

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam Initial	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB	TRANSLATION YES   NO

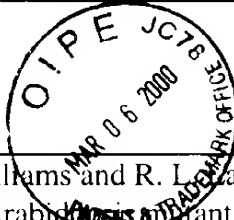
## OTHER PRIOR ART

Exam Initial	Author, Title, Date, Pertinent Pages, Etc
APK	AA Barber, G. A., 1971 Synthesis of L-galactose by plant enzyme systems. Arch Biochem Biophys <b>147</b> : 619-623.
I	AB Becker, D., E. Kemper, J. Schell and R. Masterson, 1992 New plant binary vectors with selectable markers located proximal to the left T-DNA border. Plant Mol Biol <b>20</b> : 1195-1197.
I	AC Bonin, C. P., I. Potter, G. F. Vanzin and W.-D. Reiter, 1997 The <i>MUR1</i> gene of <i>Arabidopsis thaliana</i> encodes an isoform of GDP-D-mannose-4,6-dehydratase, catalyzing the first step in the <i>de novo</i> synthesis of GDP-L-fucose. Proc Natl Acad Sci USA <b>94</b> : 2085-2090.
I	AD S.J. Clough and A.F. Bent, 1998. Plant J. <b>16</b> : 735-743.
I	AE Conklin, P. L., and R. L. Last, 1995 Differential accumulation of antioxidant mRNAs in <i>Arabidopsis thaliana</i> exposed to ozone. Plant Physiol <b>109</b> : 203-212.
I	AF Conklin, P. L., S. N. Norris, G. L. Wheeler, N. Smirnoff, E. H. Williams and R. L. Last, 1999a Genetic evidence for the role of GDP-mannose in plant vitamin C biosynthesis. Proc Natl Acad Sci USA, Vol. 96, pp. 4198-4203.
I	AG Conklin, P. L., J. E. Pallanca, R. L. Last and N. Smirnoff, 1997 L-Ascorbic acid metabolism in the ascorbate deficient mutant <i>vtc1</i> . Plant Physiol <b>115</b> : 1277-1285.
APK	AH Conklin, P. L., S. A. Saracco, S. R. Norris and R. L. Last, 1999b <del>Vitamin C-deficient <i>Arabidopsis thaliana</i> mutants isolated using a novel vitamin C detection method. Genetics, in preparation.</del>

Identification of ascorbic acid-deficient *Arabidopsis thaliana* mutants Genetics, 2000 154: 847-856.

Steve A. Trudel

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AR1	AI	Conklin, P. L., E. H. Williams and R. L. Last, 1996 Environmental stress sensitivity of an ascorbic acid-deficient Arabidopsis mutant. Proc Natl Acad Sci USA <b>93</b> : 9970-9974.
	AJ	Dawson, R. M. C., Elliot, D. C., Elliot, W. H. & Jones, K. M. (1986) in <i>Data for Biochemical Research, Third Edition</i> (Oxford Univ. Press, London), pp. 485-486.
	AK	Hashimoto, H., A. Sakakibara, M. Yamasaki and K. Yoda, 1997 <i>Saccharomyces cerevisiae</i> VIG9 encodes GDP-mannose pyrophosphorylase, which is essential for protein glycosylation. J. Biol Chem <b>272</b> : 16308-16314.
	AL	Karpinski, S., C. Escobar, B. Karpinska, G. Creissen and P. M. Mullineaux, 1997 Photosynthetic electron transport regulates the expression of cytosolic ascorbate peroxidase genes in Arabidopsis during excess light stress. Plant Cell <b>9</b> : 627-640.
	AM	Kishida, E., Y. Nishimoto and S. Kojo, 1992 Specific determination of ascorbic acid with chemical derivatization and high-performance liquid chromatography. Anal Chem <b>64</b> : 1505-1507.
	AN	Lamb, C., and R. A. Dixon, 1997 The oxidative burst in plant disease response. Annu Rev Plant Physiol Plant Mol Biol <b>48</b> : 251-275.
	AO	Landry, L. G., C. C. S. Chapple and R. L. Last, 1995 Arabidopsis mutants lacking phenolic sunscreens exhibit enhanced ultraviolet-B injury and oxidative damage. Plant Physiol <b>109</b> : 1159-1166.
	AP	Levine, A., R. Tenhaken, R. Dixon and C. Lamb, 1994 H <sub>2</sub> O <sub>2</sub> from the oxidative burst orchestrates the plant hypersensitive disease resistance response. Cell <b>79</b> : 583-593.
	AQ	Mächler, F., M. R. Wasescha, F. Krieg and J. J. Oertli, 1995 Damage by ozone and protection by ascorbic acid in barley leaves. J. Plant Physiol <b>147</b> : 469-473.
	AR	Menser, H. A., 1964 Response of plants to air pollutants. III. A relation between ascorbic acid levels and ozone susceptibility of light preconditioned tobacco plants. Plant Physiol <b>39</b> : 564-567.
	AS	Ōba, K., S. Ishikawa, M. Nishikawa, H. Mizuno and T. Yamamoto, 1995 Purification and properties of L-galactono-g-lactone dehydrogenase, a key enzyme for ascorbic acid biosynthesis, from sweet potato roots. J Biochem <b>117</b> : 120-124.
	AT	Østergaard, J., G. Persiau, M. W. Davey, G. Bauw and M. Van Montagu, 1997 Isolation of a cDNA coding for L-galactono-g-lactone dehydrogenase, an enzyme involved in the biosynthesis of ascorbic acid in plants. J Biol Chem <b>272</b> : 30009-30016.
	AU	Pandya, N., and S. J. Bedi, 1990 Induction of pollution resistance in tomato. Adv Plant Sci <b>3</b> : 171-177.
	AV	Smirnoff, N., 1996 The function and metabolism of ascorbic acid in plants. Ann Bot <b>78</b> : 661-669.
	AW	Smirnoff, N., and J. E. Pallanca, 1996 Ascorbate metabolism in relation to oxidative stress. Biochem Soc Trans <b>24</b> : 472-478.
	AX	Somerville, C. R., S. Turner, W.-R. Schieble, W. Lukowitz, T. Nickle, D. Meinke, S. Cutler and T. Richmond, 1998 Genetic dissection of cell wall composition in Arabidopsis. Plant Physiol <b>118</b> : 500001.
	AY	Szumilo, T., R. R. Drake, J. L. York and A. D. Elbein, 1993 GDP-mannose pyrophosphorylase. J Biol Chem <b>268</b> : 17943-17950.
	AZ	Wheeler, G. L., M. A. Jones and N. Smirnoff, 1998 The biosynthetic pathway of vitamin C in higher plants. Nature <b>393</b> : 365-369.
AR1C	BA	Wu, G., B.J. Shortt, E. B. Lawrence, E. B. Levine, K.C. Fitzsimmons and D. M. Shah, 1995, Disease resistance conferred by expression of a gene encoding H <sub>2</sub> O <sub>2</sub> -generating glucose oxidase in transgenic potato plants., Plant Cell <b>7</b> : 1357-1368.

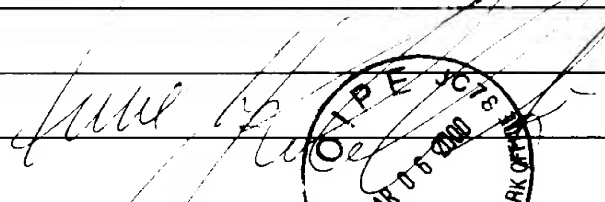
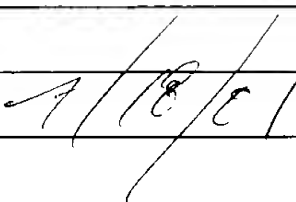
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ARK	BB	HAUGHN, G. W., and C. SOMERVILLE, 1986 Sulfonyleurea-resistant mutants of <i>Arabidopsis thaliana</i> . Mol. Gen. Genet. <b>204</b> : 430-434.
	BC	KUTNINK, M. A., W. C. HAWKES, E. E. SCHAUS and S. T. OMAVE, 1987 An internal standard method for the unattended high-performance liquid chromatographic analysis of ascorbic acid in blood components. Anal. Biochem. <b>166</b> : 424-430.
	BD	LI, J., J. ZHAO, A. B. ROSE, R. SCHMIDT and R. L. LAST, 1995 Arabidopsis phosphoribosylanthranilate isomerase: molecular genetic analysis of triplicate tryptophan pathway genes. Plant Cell <b>7</b> : 447-461.
	BE	MITTON, K. P., and J. R. TREVITHICK, 1994 High-performance liquid chromatography-electrochemical detection of antioxidants in vertebrate lens: glutathione, tocopherol, and ascorbate. Meth. Enzymol. <b>233</b> : 523-539.
	BF	NICKLE, T. C., and D. W. MEINKE, 1998 A cytokinesis-deficient mutant of Arabidopsis ( <i>cyt1</i> ) characterized by embryonic lethality, incomplete cell walls and excessive callose accumulation. Plant J. <b>15</b> : 321-332.
	BG	SHARMA, Y. K., and K. R. DAVIS, 1994 Ozone-induced expression of stress-related genes in <i>Arabidopsis thaliana</i> . Plant Physiol. <b>105</b> : 1089-1096.
	BH	Jayaratne, P., Bronner, D., MacLachlan, P. R., Dodgson, C., Kido, N. & Whitfield, C. (1994) J Bacteriol. <b>176</b> , 3126-3139.
	BI	Griffin, A. M., Poelwijk, E. S., Morris, V. I & Gasson, M. J. (1997) FEMS Microbiol. Letts. <b>154</b> , 389-396.
	BJ	Sa-Correia, I., Darzins, A., Wang, S.-K., Berry, A. & Chakrabarty, A. M. (1987) J Bacteriol. <b>169</b> , 3224-3231.
	BK	Loewus, M. W., J. A. Hick, D.L. Bedgar and F.A. Loewus, 1987, Plant Physiol <b>83S</b> :126
	BM	Report for Putative Mannose, July 1999, Sequence for putative mannose-1-phosphate guanyltransferase T517.7
	BL	Nucleotide Query, 1999, Arabidopsis thaliana chromosome II BAC T517 genomic sequence, .
	BM	Barber, G., 1979, Observations on the Mechanism of the Reversible Epimerization of GDP-d-mannose to GDP-l-GALACTOSE BY AN Enzyme of <i>Chlorella pyrenoidosa</i> , Jnl. Of Biological Chem., Vol. 254, pp 7600-7603.
	BN	Burget, E.G. and Reiter, W., 1999, The mur4 Mutant of Arabidopsis Is Partially Defective in the de Nova Synthesis of Uridine Diphospho L-Arabinose, Plant Physiology, Vol. 121, pp 383-389.
ARK	BO	Davey, M.W. et al, 1999, Ascorbate Biosynthesis in Arabidopsis Cell Suspension Culture, Plant Physiology, Vol. 121, pp. 535-543.

EXAMINER

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